

# Lloyd's Register of Shipping.

## SURVEYS FOR FREEBOARD.

Index. No. 28614  
(For London Office only.)

27 DEC 1941

Computation of Freeboard for Steamer, Sailing Ship, Tanker TUGhaving a flush deckPort of Survey SYDNEY N.S.W.

(Type of Superstructures.)

Date of Survey 8 OCT. 1941

Ship's Name

Nationality and Port of Registry

Official Number

Gross Tonnage

Date of Build

"LINDFIELD"Australian  
Sydney14413663841920-3

Name of Surveyor

J. Pratt

Moulded Dimensions: Length

135.00

Breadth

29.0'

Depth

4.00 lowest point of deck  
16.166 amidships

Moulded displacement at moulded draught = 85 per cent. of moulded depth

852 tons

Coefficient of fineness for use with Tables

Min. - 68555 actual

Particulars of Classification

A.I.  
For towing purposes

Depth for Freeboard (D)

5

Depth correction

(a) Where D is greater than Table depth

 $(D - \text{Table depth}) R =$   
 $(16.17 - 9.00) \times 1.038 = +7.44"$ 

(b) Where D is less than Table depth (if allowed)

(Table depth - D) R =

Round of Beam correction

Moulded Breadth (B)

29.0 ✓Standard Round of Beam =  $\frac{B \times 12}{50} =$ 6.96

Ship's Round of Beam =

7.0 ✓

Difference

.04 ✓

Restricted to

Correction =  $\frac{\text{Diff}^2}{4} \times (1 - \frac{S_1}{L}) =$ .04  
4 = -.01"

Moulded depth ... .. 16.166

Stringer plate ... .. 30 ... .. .02

Sheathing on exposed deck

$T \left( \frac{L-S}{L} \right) =$

Depth for Freeboard (D) = 16.141

## DEDUCTION FOR SUPERSTRUCTURES.

	Mean Covered Length (S)	Equivalent Enclosed Length (S <sub>1</sub> )	Height	Height Correction	Effective Length (E)
Poop enclosed ... ..					
.. .. overhang ... ..					
B.Q.D. enclosed ... ..					
.. .. overhang ... ..					
Bridge enclosed ... ..					
.. .. overhang aft ... ..					
.. .. overhang forward ... ..					
Fore enclosed ... ..					
.. .. overhang ... ..					
Trunk aft ... ..					
.. .. forward ... ..					
Tonnage opening aft ... ..					
.. .. forward ... ..					
Total ... ..					

Standard Height of Superstructure .....

.. .. R.Q.D. ....

Deduction for complete superstructure .....

Percentage covered  $\frac{S}{L} =$ .. ..  $\frac{S_1}{L} =$ .. ..  $\frac{E}{L} =$ 

Percentage from Table, Line A.

(corrected for absence of forecastle (if required))

Percentage from Table, Line B.

(corrected for absence of forecastle (if required))

Interpolation for bridge less than 2L (if required)

Deduction = Nie.

## SHEER CORRECTION.

Lowest point of sheer aft of amidships

Station	Standard Ordinate	S	M	Product	Actual Ordinate	Effective Ordinate	S	M	Product
A.P. ... ..	<u>23.5</u>	1		<u>23.50</u>	<u>29.63</u>	<u>29.63</u>	1		<u>29.63</u>
$\frac{1}{4}$ L from A.P. ... ..	<u>10.4</u>	4		<u>41.82</u>	<u>10.8</u>	<u>10.80</u>	4		<u>43.20</u>
$\frac{2}{4}$ L " ... ..	<u>2.5</u>	2		<u>5.18</u>	<u>0</u>	<u>0</u>	2		<u>0.00</u>
Amidships ... ..	<u>—</u>	4		<u>—</u>	<u>—</u>	<u>—</u>	4		<u>—</u>
$\frac{3}{4}$ L from F.P. ... ..	<u>5.4</u>	2		<u>10.34</u>	<u>9.8</u>	<u>9.80</u>	2		<u>19.60</u>
$\frac{1}{4}$ L " ... ..	<u>20.2</u>	4		<u>83.66</u>	<u>32.00</u>	<u>32.00</u>	4		<u>128.00</u>
F.P. ... ..	<u>7.0</u>	1		<u>47.20</u>	<u>67.75</u>	<u>67.75</u>	1		<u>67.75</u>
Total ... ..				<u>211.50</u>					<u>288.18</u>

Mean actual sheer aft = ExcessMean standard sheer aft = ExcessMean actual sheer forward = ExcessMean standard sheer forward = ExcessLength of enclosed superstructure forward of amidships = Flush deck

.. .. aft of .. .. =

Correction =  $\frac{\text{Difference between sums of products}}{18} =$  $(.75 - \frac{S}{2L}) = \frac{76.68(.75 - 0)}{18} = -3.20"$ 

If limited on account of midship superstructure. ✓

If limited to maximum allowance of  $1\frac{1}{2}$  ins. per 100 ft. ✓

Deduction for Tropical Freeboard.

Addition for Winter and Winter North Atlantic Freeboard.

Depth to Freeboard Deck = 16.17Summer freeboard = 1.89Moulded draught (d) = 14.28

Deduction for Tropical freeboard and addition for

Winter freeboard =  $\frac{d}{4}$  inches = 3.57 = 3 1/2Addition for Winter North Atlantic Freeboard (if required) = 3.57 + 1.35 = 4.92 = 5

Deduction for Fresh Water.

Displacement in salt water at summer load water line

 $\Delta =$  895

Tons per inch immersion at summer load water line

T = 7.0Deduction =  $\frac{\Delta}{40T}$  inches=  $\frac{895}{40 \times 7.0} = 3.20$  = 3 1/412'  $\Delta = 706$  Tons 665 B.H.

13' = 789 " 747 "

14' = 873 " 832 "

TABULAR FREEBOARD corrected for Flush Deck (if required)

Correction for coefficient None

Depth Correction ... ..

Deduction for superstructures ... ..

Sheer correction ... ..

Round of Beam correction ... ..

Correction for Thickness of Deck amidships ... ..

Other corrections, scantlings, etc. ... ..

10.33 3.21 + 7.12

Summer Freeboard = 22.75

SUMMER FREEBOARD amidships from Centre of Disc to top of Deck Line, Wood, Steel, Deck:—

Tropical Fresh Water Line above Centre of Disc	<u>3 3/4</u>
Fresh Water Line " "	<u>3 1/4</u>
Tropical Line " "	<u>3 1/2</u>
Winter Line below " "	<u>3 1/2</u>
Winter North Atlantic Line " "	<u>5</u>

Tropical Fresh Water Freeboard	<u>1' 10 3/4</u>
Fresh Water " "	<u>1' 4 1/4</u>
Tropical " "	<u>1' 7 1/2</u>
Winter " "	<u>1' 7 1/4</u>
Winter North Atlantic " "	<u>2' 2 1/4</u>
Winter North Atlantic " "	<u>2' 3 3/4</u>



## PARTICULARS OF PROTECTION TO OPENINGS, ETC.

HATCHWAYS ON FREEBOARD AND SUPERSTRUCTURE DECKS											
			UPPER DIR.	CASING TOP	← SMALL HATCHES →						
Description of Hatchway ... ..			CROSS BUNKER	CROSS BUNKER		F.P. Tank	Magazine	A.P. Tank			
Dimensions of Hatchway ... ..			5'5" x 9'11"	6'3" x 13'11"		19" dia.	30" x 30"	30" x 17"			
COAMINGS	{	Height above Deck ...	36" ✓	12"	Height	20"	12"	12"			
		Thickness { Sides ...	32 ✓	32	Thickness	30	30	30			
		Stiffeners { Ends ...	32	32							
		Brackets, Stays ...	5'5" x 3'8" ✓	None ✓	Covers	w.t. steel covers fitted with toggles + butterfly nuts ✓					
HATCH BEAMS	{	Number ... ..									
		Spacing ... ..									
		Scantling and Sketch ...	None	None							
		Bearing Surface ... ..									
FORE AND AFTERS	{	Number ... ..									
		Spacing ... ..									
		Unsuported Lengths ...									
		Scantling* and Sketch ...	None	None							
		Bearing Surface ... ..									
HATCH COVERS	{	Material ... ..	Wood	Wood ✓							
		Thickness ... ..	2 3/8	2 1/2							
		How fitted ... ..	Fore + Aft	Fore + Aft							
		Bearing Surface ... ..	2 1/2"	2 1/4"							
Spacing of Cleats ... ..			24" bays	30" ✓							
Number of Tarpaulins ... ..			2 ✓	2							

\*Are wood fore and afters steel shod at all bearing surfaces? ✓

Are battens and wedges efficient and in good condition? ✓

Are tarpaulins in good condition and in accordance with rule requirements? Yes

Are lashings provided in accordance with rule requirements? None

Particulars of fiddley, funnel and ventilator coamings :—

Fidley, funnel & ventilator coamings strongly & efficiently constructed

Fidley openings fitted with steel covers & locking bars

Engine Room skylight of steel, strongly constructed

Particulars of Flush Bunker Scuttles :—

Four each side 20" dia. Heavy cast iron covers fitted with bayonet joints  
Locking bar also provided ✓

Locking bar also provided

permanent Chain attachment fitted -

Particulars of Companionways:— Entrance to crews accommodation forward & aft in strongly constructed steel deckhouses

Forward house - Hardwood door 4'-11" x 2'-0" - 19" sill - operated from both sides

After house - " " 4'5" x 2'0" - 19" sill -

Particulars of Ventilators in exposed positions on freeboard and superstructure decks :—

Freeboard Ok: - To space above chain locker - 2 C.I. - S.N. Vents 4" dia. 41" high

To Crews Accomdts forward - 2 " " 4 " " 38 " "

To Burnham 1-6" dia. vent-coaming 30" x 30"

10 Bunkers - - - - - 6 P.T. - S.H. Vents 4" dia 27"

To Engine Room — — — 2-12" dia. vents - Coaming 30"x30"

18 Craws - 4 ft - 2-6" dia. M. Vents 30 high  
" " 1-7" dia. Vent - Corning 12"x.

Vents fitted with  
wooden plugs  
+ canvas covers  
where vent cowls

Particulars of Air Pipes in exposed positions on freeboard, raised quarter, or superstructure decks :—

To fore peak tank - One 4" dia 41" high

To space below B.R. floors—One 4" dia 15" high

To Dble. Bottom tank — Two 5" dia. 26" high

Air pipes fitted with  
wooden plugs ✓

Particulars of Gangway Cargo and Coaling Ports :—

- stone -

Particulars of Scuppers and Sanitary Discharge Pipes —

Six deck scrapers - each side - 3" dia - from foreboard deck

One 4" dia. soil pipe from W.C. above foreboard deck, with steam valve at ship's side fitted below foreboard deck

Particulars of Side Scuttles: Ventral distance of lowest side scuttle above top of keel 16'-3"

To Crews Accom<sup>d</sup><sup>n</sup> forward - 6 sidelights 9' ova. fitted with dead lights (through shell)  
 " " " - 6 " " " through forward

To Engine Room - four sidelights 10" dia. fitted with dead lights (through engine room casing)

### Particulars of Guard Rails :—

- None -

Particulars of Gangways, Lifelines, etc. :—

—None—

Particulars of Freeing Arrangements.						
	Length of Bulwark	Height of Bulwark	Size of Freeing Ports	Number each side	Area each side	Rule area each side
After Well ... ..	134.75'	3'-6"	2'-6" x 1'-0"	6	15.0 sq	26.95.
Forward Well ... ..						

State position of each freeing port ... .. { After Well :—  
(F. and A. position and height above deck edge) { Forward Well :—

State whether the freeing ports are fitted with shutters, bars, or rails, and give particulars of such :—

Additional area where sheer is less than standard. ✓

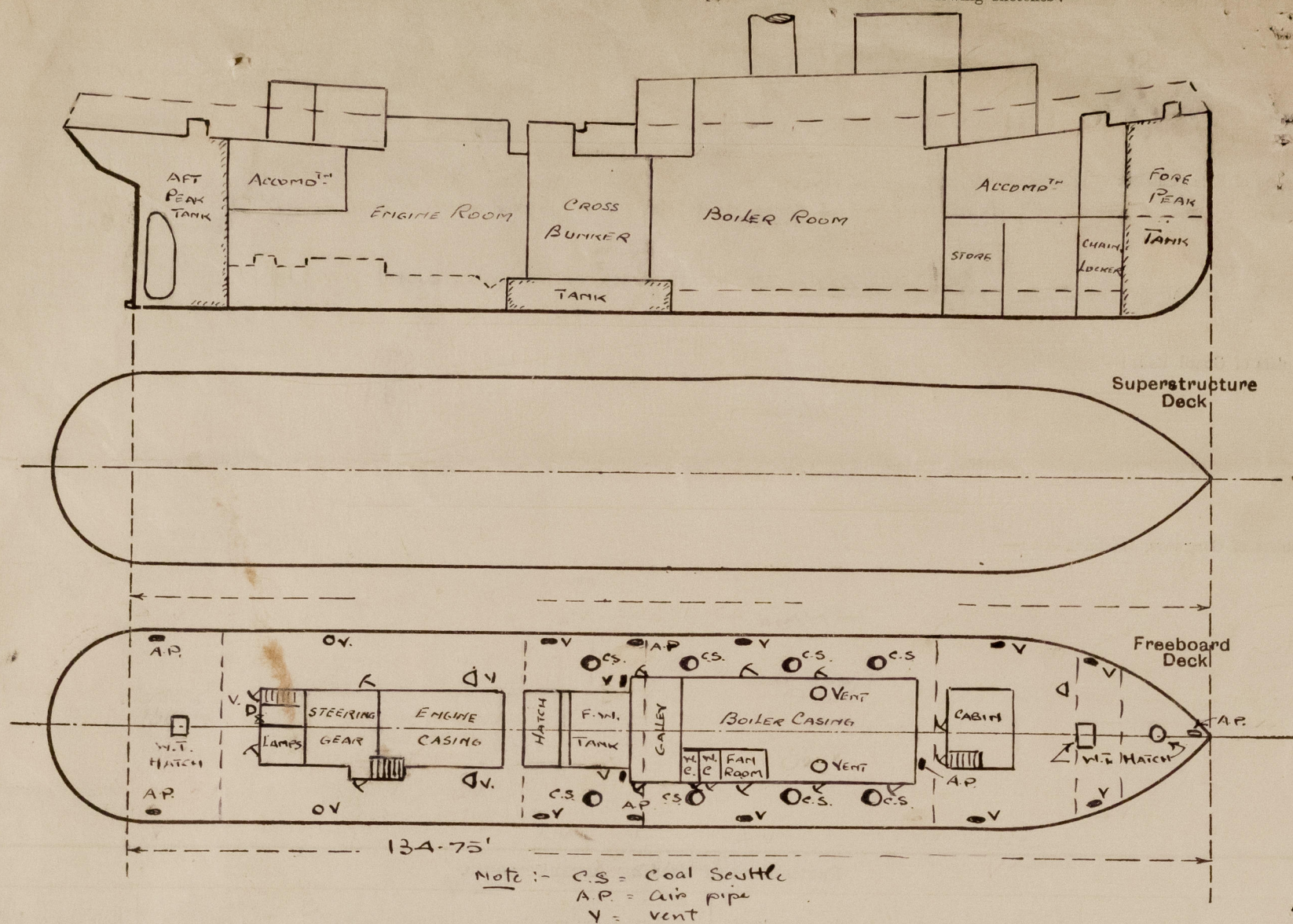
Handed steel shutters  
↳ Lower edge of freeing ports 9' above deck

For

Particulars of Superstructures, Trunks, Casings, Deckhouses.								
	Coaming	Plating	Stiffeners	Spacing	End Attachments of Stiffeners	Size of Openings	Height of Sills	Height of Casings
Poop Bulkhead ... ..	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	✓							
Bridge, Forward Bulkhead ... ..	✓							
Forecastle Bulkhead ... ..	✓							
Trunk, Aft ... ..	✓							
Trunk, Forward ... ..	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	B.R. '25	'25	3 x 3 x 30 L	30" to 36"	None	2'-3" x 1'-5" with hoist 3'-9" x 1'-9"	19"	4'-6"
Exposed Machinery Casings on Super-structure Decks ... ..	E.R. '25	'25	2 1/2 x 2 1/2 x 25 L	24"	6 ft" at top	4'-5" x 2'-0"	19"	3'-5" (6'-6" in way of openings)
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓							
Forecastle Bulkhead ... ..	Fore '36	'25	3 x 3 x 30 L	34"	Pant only riveted to beams at top	4'-11" x 2'-0"	19"	7'-6"
Deckhouses on Flush Deck Ships ...	Aft. '25	'25	2 1/2 x 2 1/2 x 25 L	22"	6 ft" top	4'-5" x 2'-0"	19"	6-6
Particulars of Closing Appliances (state if capable of being manipulated from both sides).								
Poop Bulkhead ... ..	✓							
Raised Quarter Deck Bulkhead ...	✓							
Bridge, After Bulkhead ... ..	✓							
Bridge, Forward Bulkhead ... ..	✓							
Forecastle Bulkhead ... ..	✓							
Exposed Machinery Casings on Free-board or Raised Quarter Decks ...	Hinged steel doors - operated from both sides							
Exposed Machinery Casings on Super-structure Decks ... ..	✓							
Machinery Casings within Superstructures not fitted with Class I Closing Appliances ... ..	✓							
Deckhouses on Flush Deck Ships ...	Hinged handwood doors - operated from both sides							



Superstructure bulkheads, trunks, deckhouses, casings, cargo and coaling hatchways, extent and thickness of sheathing on the freeboard deck, gangway, cargo and coaling ports, and any other openings, etc., which would affect the seaworthiness of the ship, are to be shown on the following sketches:—



State any special features in the construction of the ship:—

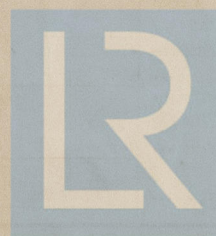
Forecastle removed since vessel built ✓  
Vessel used for harbour & ocean going services ✓

Builder's name and yard number *Messrs. Livingstone & Coopers Ltd. - Hesketh - Hull*

*Similar*  
Names of sister ships *St. Austell; St. Giles*

Owners *Messrs. J. Fenwick & Co. Pty. Ltd.*

Fee £ *6:0:0* Received by me



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